AMENDMENT

Listing of Claims

The following listing of claims replaces all previous listing or versions thereof:

1. (Presently amended) A method for identifying a subject at risk for the development of non-small cell lung cancer comprising:

   (a) obtaining a test sample from a subject;

   (b) providing an RPL14 gene probe from human chromosomal region 3p and a 10q22 DNA gene probe;

   (c) contacting said probes with said test sample; and

   (d) analyzing DNA from said test sample for loss of heterozygosity in RPL14 and 10q22,

   whereby loss of RPL14 and 10q22 heterozygosity indicates risk for the development of non-small cell lung cancer.

2. (Previously presented) The method of claim 1, wherein said test sample comprises a surgical or biopsy specimen, a paraffin embedded tissue, a frozen tissue imprint, a sputum, esophageal brush, a fine needle aspiration, a buccal smear or a bronchial lavage.

3. (Previously presented) The method of claim 1, further comprising providing a GC20 gene probe and performing steps (c) and (d) with said GC20 gene probe.

4-10. (Canceled)

11. (Original) The method of claim 1, wherein said subject is a smoker.

12. (Original) The method of claim 1, wherein said subject is a former smoker.

13. (Original) The method of claim 1, wherein said subject is a non-smoker.

14. (Original) The method of claim 1, wherein said test sample comes from said subject who has not previously been diagnosed with cancer.

15. (Original) The method of claim 1, wherein said probe is labeled with a fluorophore.

16. (Original) The method of claim 1, wherein said probe is labeled with digoxigenin.

17. (Original) The method of claim 1, wherein said probe size is between 1000 and 2000 base pairs.

18. (Original) The method in claim 1, further comprising a spiral CT-scan.

19. (Previously presented) The method of claim 1, further comprising administering to said subject chemopreventive drugs, nutritional supplements, chemotherapeutic drugs or biological modifying response drugs.

20. (Original) The method of claim 1, wherein said method is used to identify subjects who need an intensive follow-up protocol.

21. (Previously presented) The method of claim 1, wherein said probe is used to identify subjects who are suitable for novel investigational therapeutic approaches.

22. (Original) The method of claim 1, wherein a control probe is used.

23. (Original) The method of claim 22, wherein said control probe is labeled with a fluorophore.

24. (Original) The method of claim 23, wherein said control probe is labeled with spectrum orange.

25. (Original) The method of claim 22, wherein said control probe is a chromosome 3 stable marker.

26. (Original) The method of claim 25, wherein said control probe is Centromere 3 (CEP 3).

27. (Original) The method of claim 1, wherein analyzing comprises using FISH.

28. (Previously presented) The method of claim 1, wherein said probe is used as a biomarker for the early detection of early neoplastic events or cancer.

29-88. (Previously canceled)